

### **REMARKS**

This responds to the Office Action mailed on October 10, 2006, and the references cited therewith.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-19 are now pending in this application with claims 5-7 and 12-19 being withdrawn.

#### **§103 Rejection of the Claims**

Claims 1, 4, 8 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,357,342 to Dreyfus (hereinafter, "the Dreyfus reference") in view of U.S. Patent No. 3,008,601 to Cahne (hereinafter, "the Cahne reference"). Claims 2-3 and 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dreyfus reference in view of the Cahne reference and further in view of U.S. Patent No. 4,677,905 to Johnson (hereinafter, "the Johnson reference"). In addition, claims 2-3 and 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Dreyfus reference in view of the Cahne reference and further in view of U.S. Patent No. 5,199,347 to Chen (hereinafter, "the Chen reference"). Applicants disagree with the stated grounds of rejection based upon the cited art and desire to further clarify various distinctions of the applicant's invention over the prior art. Reconsideration of the present application is therefore requested in light of the following remarks.

Although the disclosed embodiments of the invention may be discussed in comparison to the prior art, it is understood that any discussion of the disclosed embodiments, as well as any discussion of the differences between the disclosed embodiments of the present invention and the prior art do not define the scope or interpretation of any of the claims. Instead, such discussed differences, if presented, are offered merely to help the Examiner appreciate important claim distinctions as they are discussed.

The Examiner has cited the Dreyfus reference for disclosing an apparatus suitable for steaming frozen foods, which includes a relatively thick sheet of a glass-ceramic substrate material having a plurality of tapered holes that extend through the substrate material. The Examiner admits, however, that the Dreyfus reference fails to disclose or suggest a polymer coating applied to a surface of the substrate disclosed in the Dreyfus reference. Accordingly, the Examiner has applied the Cahne reference that discloses a method for producing cooking utensils

having a polytetrafluoroethylene (hereinafter, "PTFE") coating. Referring now in particular to the Cahne reference, the method for applying the PTFE coating to the article is shown in Figure 6, and described, at column 4, lines 73-75, bridging to column 5, lines 1-11. In pertinent part, Cahne teaches coating a substrate by attaching the substrate to a horizontal platen that is rotated while PTFE is applied to the rotating substrate from a centrally-disposed dispenser. The PTFE material is thereby *distributed over an entire surface* of the substrate.

Assuming, *arguendo*, that the Dreyfus reference and the Cahne reference are analogous art (see arguments regarding non-analogous art, presented below), Applicants respectfully submit that the cited combination fails to establish a *prima facie* case of obviousness. The Examiner is reminded that three requirements must be met in order to establish a *prima facie* rejection based upon obviousness:

"In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art...to combine the reference teachings. Second, there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art...". *In re Væeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP §2142. (Emphasis added).

Applicants submit that the asserted combination fails to provide a *prima facie* case based upon, at least, a failure to provide the requisite motivation to combine the references, and further that the asserted combination fails to have the requisite reasonable expectation of success.

Applicants first note that the Dreyfus reference is silent regarding the application of a PTFE coating (or *any* coating) to the disclosed substrate. With reference also in particular to the Cahne reference, Applicants submit that the coating procedure disclosed in the Cahne reference would substantially fill the holes provided in the substrate of Dreyfus. In fact, the Cahne reference describes one significant advantage present in the disclosed coating procedure at column 5, lines 50-55, which states, in pertinent part: "...cavities or pits 21<sup>a</sup> in the pan 21 which define cavities...receive extensions 20<sup>a</sup> of the polytetrafluoroethylene layer 20, which extensions mate intimately with cavities 21<sup>a</sup> to hold the layer 20 to the frying pan 21.". (Emphasis added).

Accordingly, Applicants respectfully submit that the asserted combination fails to provide the requisite motivation because the Cahne reference teaches filling *all of the cavities* with the

coating material. Ostensibly, the coating material would also form “extensions” that would fill holes within a perforated substrate. Accordingly, Applicants submit that Cahne *teaches away* from the presently disclosed embodiments, since the coating is intended to fill voids in the substrate. Further, Applicants submit that since the coating material of Cahne, which is spin-deposited onto the perforated substrate of Dreyfus, would substantially fill the holes of the substrate of Dreyfus, and would therefore yield an apparatus *that is entirely unsuited for the intended application*.

Turning now to the claims, differences between the claim language and the applied references will be specifically pointed out. Claim 1 presently recites in pertinent part: “A semiconductor die stencil to assist in application of a printable adhesive in a desired pattern onto a semiconductor die comprising...a coating applied only to the bottom surface of the sheet to retard spreading of the printable adhesive onto the bottom surface of the sheet *without obstruction of the flow of printable adhesive through the apertures onto the die*.” (Emphasis added). The asserted combination does not disclose this, and cannot provide this. As described more fully above, the combination of Dreyfus and Cahne does not disclose or fairly suggest this since Cahne teaches away. Moreover, as described more fully above, the asserted combination has no reasonable likelihood of success, since the PTFE coating is spin deposited onto the perforated substrate of Dreyfus. Claim 1 is therefore allowable over the cited combination. Claims depending from claim 1 are also allowable based upon the allowable form of the base claim, and further in view of the additional limitations recited in the dependent claims.

Claim 8 presently recites in pertinent part: “A semiconductor die stencil to assist in application of a printable material in a desired pattern onto a semiconductor die comprising...a coating applied only to the bottom surface of the sheet to retard spreading of the printable material onto the bottom surface of the sheet *without obstruction of the flow of printable material through the apertures onto the die*.” (Emphasis added). Again, the combination of Dreyfus and Cahne simply does not disclose or fairly suggest this. Claim 8 is therefore allowable over the cited combination. Claims depending from claim 8 are also allowable based upon the allowable form of the base claim, and further in view of the additional limitations recited in the dependent claims.

With reference to the Examiner's other claim rejections based upon the Johnson and Chen references, Applicants respectfully assert that these references fail to remedy the deficiencies present in the Dreyfus and Cahne references.

*Non-Analogous Art*

Applicants respectfully submit that the Dreyfus reference and the Cahne reference are clearly non-analogous art which may not be used as a reference to reject Applicants claims on obviousness grounds. Accordingly, the Examiner is reminded that: "In order to rely on a reference as a basis for rejection of an applicant's invention, *the reference must either be in the field of Applicant's endeavor, or if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.*" (Emphasis added). *In re Oetliker* 177 F.2d 1493, 1446 (Fed. Cir. 1992). The Dreyfus reference, as well as the Cahne reference fail to satisfy these criteria. The Dreyfus and Cahne references are directed to the field of cooking utensils, and cookware, while the Applicants' disclosure is in the field of semiconductor device packaging, and more particularly, to the field of applying a patterned printable material onto a substrate, such as a semiconductor die.

The Dreyfus and the Cahne references are also not reasonably pertinent to Applicants' problem. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*. 966 F.2d 656, 659 (Fed. Cir. 1992). The matter with which the Dreyfus reference deals is directed to a frozen food cooker, which includes a relatively thick substrate of a glass-ceramic material (col. 2, line 16), which is not pertinent to applying a patterned material onto a substrate. In particular, Applicants note that the substrate has sufficient thickness to support the formation of a plurality of tapered holes (col. 2, lines 55-59), and may also be configured to have contoured sides to be accommodated within a cooking vessel (see generally, Figures 4 and 5). Accordingly, the Applicants maintain that the Dreyfus reference fails to be *reasonably pertinent* to the present application.

Similarly, the matter with which the Cahne reference deals is directed to coating cooking utensils with a polytetrafluoroethylene material. Significantly, the Cahne reference fails to

disclose how a perforated supporting substrate may be coated with the disclosed material.

Applicants therefore maintain that the Cahne reference also fails to be *reasonably pertinent* to the present application.

Applicants further note that the Johnson and Chen references have also been cited against the claims in the present application. Applicants further note that the Johnson reference is drawn to a food steaming apparatus, and that the Chen reference is drawn to a perforated steam plate suited for positioning in a cooker. Applicants therefore maintain that neither the Johnson nor the Chen reference is properly analogous according to the criteria cited above, and also may not be properly cited against the present application.

#### Double Patenting Rejection

Claims 1-4 and 8-11 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-13, 43 and 46-49 of co-pending Application No. 10/630,544. Claims 1-4 and 8-11 were also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,607,599 or claims 1-15 of U.S. Patent No. 6,599,365. Claims 1-4 and 8-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-77 of U.S. Patent No. 6,669,781 or claims 1-24 of U.S. Patent No. 6,641,669. Applicant specifically does not admit that claims are obvious in view of any of the above cited references. Applicant will nevertheless consider filing a Terminal Disclaimer when the claims are otherwise in condition for allowance solely in order to expedite the issuance of otherwise allowable subject matter, and further when the rejection in view of the application is no longer a provisional rejection.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (206) 230-8156 or the below listed attorney to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

TONGBI JIANG ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 349-9587

Date

10 Jan '07

By



Timothy B. Clise  
Reg. No. 40,957

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 10 day of January 2007.

Name

Kate Cannon

Signature

